

Date: Mon, 20 Jun 94 04:30:18 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #194  
To: Ham-Ant

Ham-Ant Digest                      Mon, 20 Jun 94                      Volume 94 : Issue 194

Today's Topics:

          antenna tower erection  
          Comet 2M/440/cellular mobile  
          Half-wave vertical  
          Ham-Ant Digest V94 #193  
          Long Wire question  
          Mobile Antennas

          Simple 3 el 2m beam from Coat Hanger WANTED

          Super Sensitive FSM Circuit Wanted

Wanted -- Cheap, easy directional antenna ideas for 2m \*reception\* (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>

Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 20 Jun 1994 05:24:53 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!uwm.edu!  
msuinfo!harbinger.cc.monash.edu.au!yarrina.connect.com.au!usenet@network.ucsd.edu  
Subject: antenna tower erection  
To: ham-ant@ucsd.edu

In addition to Bob's comments....

> Some one in your area has a gin pole. This is a fifteen foot pipe with a  
> pulley on the top and a clamp set on the bottom. The tower man clamps  
the  
> gin pole to the outside of the tower. The ground crew hauls the tower  
> section up and the tower man guides it into place and bolts the section.  
> He then moves the gin pole up to top of the next section ready for the  
> next lift. Hopefully the tower man has a safety belt. This is really an

> easy problem if one of your crew has done this before.

>

we have some additional rules/tips....

we put a pulley from the gin pole to the base of the tower (so the tension of the rope goes down along the line of the tower) and then have the ground crew pull the rope from about 10-20 feet away from the tower. This prevents spanners etc being dropped on people's heads.

Safety belts are mandatory as are hardhats for climbers and good shoes (it can be quite painful being on a small tower for long periods).

We walk through everything on the ground first - to make sure that we have all parts plus the right tools etc (e.g. spanner sizes). In spite of this we still leave things behind or need an additional item. We use a halyard to tow this up to climbers.

When you put a beam up on the tower, you may need 2 people on the mast. One guides/holds things in place and the other tightens up nuts etc (Many people will find a great deal of difficulty in taking both hands off the tower at the same time - at least one of your climbers may only have one hand available).

We use guyed towers - and even these wobble a lot as you put the sections on above the guys. The thought of climbing an unguyed 50 foot tower does not appeal. Consider temporary guys during erection...

Pick weather conditions carefully - the wind loading of 1-2 human bodies at the top of your tower will cause much consternation if the wind is more than a few knots.

There have been many articles on this subject in QST and Ham Radio (now defunct)...it would be worth while digging around for a few articles on this subject.

Good Luck,  
Geoff Hudson  
VK3VR

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Date: Sun, 19 Jun 94 12:34:11 -0500  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!noc.near.net!news.delphi.com!  
usernet@network.ucsd.edu  
Subject: Comet 2M/440/cellular mobile  
To: ham-ant@ucsd.edu

I saw Comet has a combination ham and cellular antenna. Does anyone have experience with this? And does anyone know where

I can get a triplexer for these bands or a duplexer that would have 2M and 440 on one side, and cellular on the other? It seems strange that Comet doesn't sell such a thing but it seems they don't.

73

Bob Sadur AA2NY

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Date: Sun, 19 Jun 1994 10:08:40 GMT  
From: iglou!gregl.slip.iglou.com!ke4dpx@uunet.uu.net  
Subject: Half-wave vertical  
To: ham-ant@ucsd.edu

Here's a short lesson I learned about antennas I thought I would share with the group.

Last winter I decided to install an external antenna so I purchased a fairly inexpensive half-wave vertical. The antenna is basically a half-wave fiberglass whip with a metal cone at the bottom with three fiberglass ground radials. We already had a five-foot mast attached to the chimney of the two-story house with a TV beam at the top of the mast. Considering the current climate, we decided to 'hurry along' the installation so we mounted the antenna along the side of the mast below the TV antenna. This arrangement worked fine for a few months and we recently got around to putting the antenna up the right way in better climate.

Our basic task was to completely remove the TV antenna since it wasn't used and to mount the half-wave to the top of the mast. Having done that, we noticed we lost about 9dB on \*everything\*. A local repeater I can get at S9+60 on a rubber duck was suddenly reduced to S9 and a distant repeater that was S3 was not even moving the S meter and was very noisy.

We discussed the problem with various amateurs in the community and one kind sole pointed out that half-wave antennas typically need a very good ground plane and that the three ground radials probably were not sufficient -- hence the signal was probably radiating straight up. We trekked back up the roof and installed the TV antenna just below the half-wave and it is now working much better. The local repeaters came back up to S9+60 and the distant repeaters are a hair better than they were before we fiddled with the antenna.

Granted, it's an el-cheapo antenna but it'll have to do until I can afford to get something better. Or perhaps get to work on a home-made J-Pole.

While I'm at it, I also discovered a very important lesson about grounding. The general story is that the antennas and the mast on the chimney are grounded very well into a ground rod. Unfortunately we discovered the electrical outlet in the living room (where the radios are plugged in) had a loose ground connection. The jist here is that I got a lively dose of AC

voltage when I went to plug the antenna into the radio. No it wasn't anywhere near 110 VAC, but it was definitely enough to let me know it was live.

So be sure to check those grounds before starting on your next antenna project.

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=====
73 de Greg  AMPRNet   - ke4dpx@ke4dpx.ampr.org [44.106.56.35]
              AX.25    - ke4dpxg@wi9p.#ncky.ky.usa.noam
              Internet - greg1@iglou.com
=====
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Date: 19 Jun 94 19:58:40 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Ham-Ant Digest V94 #193  
To: ham-ant@ucsd.edu

Robert Enenkel (callsign??),

Also, with the tower support method you mention plus with the additional 10 ft mast, the tower proably does not support much of an antenna. Check carefully with the manufactor. If your braces are 1" and run straight horizontal the tower will proably be pretty wobbly when you get up to the 40' height to install the mast - which you may decide not to climb up. Your tower sounds similar to one I had fifty feet of - with guys at 20, 40 & 50 FT. Do you have the tower model number??  
73's Robert WB5CRG

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Date: Sun, 19 Jun 1994 15:00:20 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!darwin.sura.net!news.Vanderbilt.Edu!news@network.ucsd.edu  
Subject: Long Wire question  
To: ham-ant@ucsd.edu

In a former article we saw...

---begin former article---  
From: mgalatz@panix.com (Menachem Galatz DC)  
Subject: Long Wire question  
Date: Fri, 17 Jun 94 17:44:42 GMT

I have some basic questions:

What guage wire should be used?  
Insulated?  
How long and how high?  
How do you feed it into the house?  
---end former article---

and PFEIFFEM@ctrvx1.Vanderbilt.Edu (PFEIFFEM\_1) comments...

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Date: Sun, 19 Jun 1994 13:45:46 -0700  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!gerald@cc.utexas.edu!  
slip-1-39.ots.utexas.edu!user@network.ucsd.edu  
Subject: Mobile Antennas  
To: ham-ant@ucsd.edu

In article <2tqq78\$1qn@hpscit.sc.hp.com>, dmcatee@sc.hp.com (Dale McAtee)  
wrote:

> Rafael Solis (rafaels@zimmer.CSUFresno.EDU) wrote:  
> : Not long ago I heard in this group about a great antenna made by a  
> : small company in Texas (Austin?) that sells direct (I think the 2m  
> : single band antenna was \$19.95) to the public. Can anybody help me by

Last year at the Tx VHF Society Summerfest Convention, I picked up some  
info  
about a locally made 2 Meter Antenna. The company is SEPCO Manufacturing  
1002 Lime Rock Dr, Round Rock, Texas 78681. They make a 2 meter base type  
antenna for about \$24.95, it's 5' x 1.5", weather sealed, and you can  
connect two of them together in a "phase" method. They look like a nice  
antenna for the price.

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Steven Truitt                    - Lighting Designer       -       - ARRL Member  
struitt@ccwf.cc.utexas.edu   - Grip/Electrician       -       - CALL:KC5APU  
Austin Texas                   - I.A.T.S.E.# 205/484   -       - 2 Mtr/70 cm  
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J.A.G.F.W.T. Just Another Guy From West Texas  
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Date: 19 Jun 1994 12:08:41 -0400  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!noc.near.net!  
chaos.dac.neu.edu!lynx.dac.neu.edu!not-for-mail@network.ucsd.edu  
Subject: Simple 3 el 2m beam from Coat Hanger WANTED

To: ham-ant@ucsd.edu

Subject pretty much says it all. I would like the dimensions to build a simple 2m beam antenna (e elements) using coat hangers. Someone once showed me one and claimed the dimensions were easy to remember. I have forgotten them.

Sounds like there is at least one other person interested in this. (the person wishing to work W1AW VHF repeater) Please post here and cc: me a copy by email.

Thanks!

N1ILY

Jeff

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Jeffrey Perry  
j.perry@lynx.dac.neu.edu

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Date: 19 Jun 1994 13:17:09 -0400  
From: news1.digex.net!access.digex.net!not-for-mail@uunet.uu.net  
Subject: Super Sensitive FSM Circuit Wanted  
To: ham-ant@ucsd.edu

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Date: Mon, 20 Jun 1994 01:28:46 GMT  
From: rit!isc-newsserver!ultb!jdc3538@cs.rochester.edu  
Subject: Wanted -- Cheap, easy directional antenna ideas for 2m \*reception\*  
To: ham-ant@ucsd.edu

In article <2ts5jl\$fkj@watnews1.watson.ibm.com> vinod@watson.ibm.com writes:  
>While tuning around yesterday, I realized that I can barely  
>receive W1AW on my HT on 147.550;it barely manages to break  
>the squelch. (Newington is probably about 40 miles straight-line).  
>  
>Are there any simple antennas that I can build to enhance this  
>reception? The emphasis is on simple, like with twin-lead or something  
>like that. Note that this is only for receiving.  
>  
>Any help appreciated, many thanks in advance.

>--  
>--vinod  
>email: vinod@watson.ibm.com

How much room do you have? Can you put up a TV mast/rotor? If yes, good choices are a quad or quagi. They are simple, easy to match, relatively broadband, and easy/inexpensive to build. Check the ARRL Antenna Book for quagi's, and they also list one of the smaller quads. One of the ham magazines had a construction article on a 5-element quad (don't remember which one).

73...Jim N2VNO

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Date: 20 Jun 1994 09:34:01 GMT  
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!jussieu.fr!news-rocq.inria.fr!  
news2.fnet.fr!sophia.inria.fr!zig.inria.fr!jmhertz@network.ucsd.edu  
Subject: Wanted -- Cheap, easy directional antenna ideas for 2m \*reception\*  
To: ham-ant@ucsd.edu

How about a HB9CV ?  
Last Xmas I built one from several pieces of old aluminium, copper wire  
an old trimmer 10 ... 20 pF, and a piece of thin ethernet coax  
following a plan published in an old electronics yearbook  
(Elektronik-Jahrbuch 1974, Berlin, ex-GDR).  
Sorry, I haven't the measures ready, but if one wants to know them,  
I'll be able to look them up in about a fortnight.  
Although I had no SWR meter and had thus to adjust the trimmer in  
receiving, I got good results with this antenna. With a 2.5 W HT  
I was able to hit easily a repeater about 60 km away, although my  
home town is situated in a sort of a valley.

Among other stuff, vinod@watson.ibm.com wrote:  
>(Newington is probably about 40 miles straight-line).  
>Are there any simple antennas that I can build to enhance this  
>reception?

Let's see ... 40 miles x 1.605 = 64.2 kilometer.  
I think it would work for receiving even without trimming.

g1 & 73 de F/DG0LFH  
Jan-Martin

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End of Ham-Ant Digest V94 #194

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